

## REMARKS

Claims 18, 26, 30, 32 are currently amended. Claims 36-39 are new. Consideration of the amendments above and remarks below is requested.

**I: The rejection of claims 18-24, 26 and 29-35 in light of Izawa.**

The present disclosure relates to enzyme granules with improved stability. It has been found that the addition of an acidic buffer component increases stability of detergent enzyme having an alkaline pH. Example 1 shows excellent stability of granulates in accordance with the present disclosure. Granulates in an ADW powder stored for 7 days at 40°C and 60% RH showed excellent residual activity.

Initially, Applicants note that claims 18 and 32 are currently amended. Thus, Applicants have been fully responsive to the Examiner's rejections. Reconsideration of the amended claims is urged.

In order to be obvious, the prior art reference must teach each and every element of the claimed invention. Claim 18, as amended, refers to a coated granule including a core and a coating, wherein the core comprises a uniform mixture of a detergent enzyme having an alkaline pH activity optimum, and an acidic buffer component, wherein said acidic buffer component has a pH of 1 to below 7 when measured as a 10 % aqueous solution and a  $pK_a$  in the range of 4 to 9, wherein more than 50% w/w of the core is acidic buffer component. Claim 18, as amended, requires that the acid buffer component is selected from the group consisting of phosphates, citric acid, salts of citric acid, malonic acid, succinic acid, glutaric acid, adipic acid, and disodium hydrogen citrate.

Nowhere does Izawa show that at least 50% of the core is one or more of the specified acidic buffer components. Accordingly, claim 18 is not obvious, reconsideration is urged.

With respect to sodium citrate in Izawa, Applicants note that sodium citrate is slightly alkaline --not an acid buffer component. For example, attached hereto is a page from *The Merck Index*, 11th ed. showing a listing for sodium citrate, as well as disodium hydrogen citrate. Sodium citrate is listed as having a pH of about 8 which is slightly alkaline. Disodium hydrogen citrate is acidic. Applicants disclose that stability problems can be solved by means of controlling the pH in the environment closest to and surrounding the detergent enzyme having an alkaline pH activity optimum by adding acidic buffer components to the granules. Applicants believe one of ordinary skill in the art would not use the slightly alkaline sodium citrate of Izawa to solve the problems of the present disclosure. Accordingly, sodium citrate of Izawa does not make the claimed invention obvious, reconsideration is urged.

**II: The rejection of claims 27-28 under 35 U.S.C. 103(a) in light of Izawa in view of Rahman.**

In order to be obvious, the prior art reference(s), alone, or in combination, must teach each and every element of the claimed invention. Claims 18 requires more than 50% w/w of the core to be one or more of the specified acidic buffer components. Claim 32 requires at least 55% w/w of the core to be one or more of the specified acidic buffer components. Nowhere does Izawa alone, or in combination with Rahman show one of the specified components in a granule in accordance with claims 18 or 32.

Applicants believe one of ordinary skill in the art would not use the slightly alkaline sodium citrate of Izawa to solve the problems of the present disclosure. Accordingly, there is no equivalency between citrate and disodium hydrogen citrate and sodium dihydrogen phosphate.

A patent claim is obvious over a combination of prior art references only when "the prior art would have suggested to one of ordinary skill in the art that [the claimed invention] should be carried out and would have a reasonable likelihood of success.... Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure." *In re Dow Chemical*, 837 F.2d 469, 473 (Fed. Cir. 1988); see also, 35 U.S.C. § 103. An invitation to experiment, alone, cannot make an invention obvious. *In re Dow*, 837 F.2d at 473.

Applicants believe there is no evidence given by Izawa or Rahman that there is equivalency between citrate and disodium hydrogen citrate and sodium dihydrogen phosphate. A skilled person in the art would have no reasonable expectation of success that disodium hydrogen citrate and sodium dihydrogen phosphate can be used to solve the problems of the present disclosure. Even if it was obvious to try to experiment it is not necessarily true that there would be any reasonable expectation of success. In the present case, a reasonable expectation of success requires that the skilled person can predict that disodium hydrogen citrate and sodium dihydrogen phosphate would solve the problems of the present disclosure such as promoting stability of detergent enzymes.

Applicants further note that the Examiner has not provided a sufficient reason or explicit analysis of why the disclosures of the references should be combined. The cited references are devoid of any suggestion to combine the teachings and suggestions of Izawa and Rahman, as advanced by the Examiner, except from using Applicants' disclosure as a template through hindsight reconstruction of Applicants claim. Thus, the Examiner has erroneously retraced the path of the inventor with hindsight --discounting the number of complexities of the alternatives in order to conclude that the specifically claimed coated granule was obvious. This reasoning is

always inappropriate for an obviousness test based on the language of Title 35 that requires the analysis to examine "the subject matter as a whole" to ascertain if it "would have been obvious at the time the invention was made." 35 U.S.C. § 103(a).

Applying a non-rigid TSM analysis, one of ordinary skill in the art would not be motivated by the references to substitute the citrates of Izawa, with the components of Rahman to somehow arrive at the Applicants claimed invention.

For the foregoing reasons, Applicants submit that the claims overcome any rejection under 35 U.S.C. 103. Applicants respectfully request reconsideration and withdrawal of the rejection.

### **III New Claims**

Should any additional fees be required, the USPTO is authorized to charge the deposit account of Novozymes North America, Inc. *i.e.*, deposit account No. 50-1701.

### **IV: Conclusion**

The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this response or application.

Respectfully submitted,

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